

METHOD 1

Date _____

$\Sigma m = (m_0, m_2, m_8, m_9, m_{10}, m_{12}, m_{13}, m_{14}, m_{15}, m_{24}, m_{25}, m_{26}, m_{29}, m_{31}, m_{32}, m_{33}, m_{35}, m_{39}, m_{40}, m_{42}, m_{43}, m_{44}, m_{45}, m_{46}, m_{47}, m_{55}, m_{56}, m_{58}, m_{59}, m_{60}, m_{61}, m_{62}, m_{63})$

	$\bar{D}\bar{E}\bar{F}$	$\bar{D}\bar{E}F$	$\bar{D}E\bar{F}$	$\bar{D}EF$	$D\bar{E}\bar{F}$	$D\bar{E}F$	$DE\bar{F}$	DEF
	000	001	011	010	110	111	101	100
$\bar{A}\bar{B}\bar{C}$	1			1				
000	0	1	3	2	6	7	5	4
$\bar{A}\bar{B}C$	1	1		1			1	1
001	8	9	4	10	14	15	13	12
$\bar{A}B\bar{C}$	1	1		1		1	1	
011	24	25	27	26	30	31	29	28
$\bar{A}BC$	1			1				
010	16	17	19	18	22	23	21	20
$AB\bar{C}$	1			1				
110	48	49	51	50	54	55	53	52
ABC	1			1		1	1	
111	56	57	59	58	62	63	61	60
$A\bar{B}\bar{C}$	1		1	1		1		
101	40	41	43	42	46	47	45	44
$A\bar{B}C$	1		1	1		1		
100	32	33	35	34	38	39	37	36

$$(0, 2, 8, 10, 14, 26, 16, 18, 48, 50, 56, 58, 40, 42, 32, 34) = \bar{D} \cdot \bar{F}$$

$$(8, 9, 13, 12) = \bar{A} \cdot \bar{B} \cdot C \cdot \bar{E}$$

$$(8, 9, 24, 25) = \bar{A} \cdot C \cdot \bar{D} \cdot \bar{E}$$

$$(29, 31, 61, 63) = B \cdot C \cdot D \cdot E$$

$$(35, 39, 43, 47) = A \cdot \bar{B} \cdot E$$

METHOD 2

Date _____

$\sum m(m_0, m_2, m_8, m_9, m_{10}, m_{12}, m_{13}, m_{16}, m_{18}, m_{24}, m_{25}, m_{26}, m_{29}, m_{31}, m_{32}, m_{34}, m_{35}, m_{39}, m_{40}, m_{42}, m_{43}, m_{47}, m_{48}, m_{50}, m_{51}, m_{56}, m_{58}, m_{61}, m_{63})$

	$\bar{D}\bar{E}\bar{F}$	$\bar{D}\bar{E}F$	$\bar{D}E\bar{F}$	$\bar{D}EF$	$D\bar{E}\bar{F}$	$D\bar{E}F$	$DE\bar{F}$	DEF
	000	001	011	010	100	101	111	110
$\bar{A}\bar{B}\bar{C}$	1			1				
000	0	1	3	2	4	5	7	6
$\bar{A}\bar{B}C$	1	1		1	1	1		
001	8	9	11	10	12	13	15	14
$\bar{A}B\bar{C}$	1		1			1	1	
011	24	25	27	26	28	29	31	30
$\bar{A}BC$	1			1				
010	16	17	19	18	20	21	23	22
$A\bar{B}\bar{C}$	1		1	1			1	
100	32	33	35	34	36	37	39	38
$A\bar{B}C$	1		1	1			1	
101	40	41	43	42	44	45	47	46
$AB\bar{C}$	1			1		1	1	
111	56	57	59	58	60	61	63	62
ABC	1			1				
110	48	49	51	50	52	53	55	54

$$(0, 2, 8, 10, 24, 26, 16, 18, 32, 34, 40, 42, 56, 58, 48, 50) = \bar{D}\bar{F}$$

$$(8, 19, 12, 13) = \bar{A} \cdot \bar{B} \cdot C \cdot \bar{E}$$

$$(8, 9, 24, 25) = \bar{A} \cdot C \cdot \bar{D} \cdot \bar{E}$$

$$(29, 31, 61, 63) = BCD\bar{F}$$

$$(35, 39, 43, 47) = A \cdot \bar{B} \cdot E \cdot F$$



Teacher's Signature _____

$\Sigma m(m_0, m_2, m_8, m_9, m_{10}, m_{12}, m_{13}, m_{16}, m_{18}, m_{24}, m_{26}, m_{28}, m_{29}, m_{31}, m_{32}, m_{34}, m_{35}, m_{39}, m_{40}, m_{42}, m_{45}, m_{47}, m_{48}, m_{50}, m_{56}, m_{58}, m_{61}, m_{63})$

Date _____

METHOD 3

Truth Table for \bar{A} and \bar{B}

\bar{A}	\bar{B}	$\bar{A}\bar{B}$	$\bar{A}B$	$A\bar{B}$	AB	$\bar{A}\bar{B}$	$\bar{A}B$	$A\bar{B}$	AB
00	01	1	0	0	0	00	01	1	0
01	00	0	1	0	0	00	01	1	0
10	00	0	0	1	0	00	01	1	0
11	00	0	0	0	1	00	01	1	0
00	10	0	0	0	1	00	01	1	0
01	10	0	0	0	1	00	01	1	0
10	10	0	0	0	1	00	01	1	0
11	10	0	0	0	1	00	01	1	0

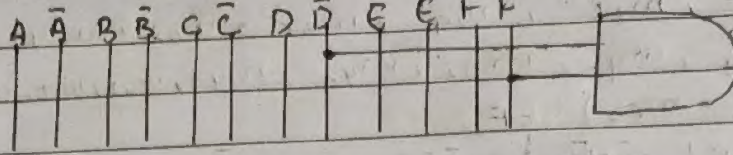
Truth Table for \bar{A} and \bar{B}

\bar{A}	\bar{B}	$\bar{A}\bar{B}$	$\bar{A}B$	$A\bar{B}$	AB	$\bar{A}\bar{B}$	$\bar{A}B$	$A\bar{B}$	AB
00	01	1	0	0	0	00	01	1	0
01	00	0	1	0	0	00	01	1	0
10	00	0	0	1	0	00	01	1	0
11	00	0	0	0	1	00	01	1	0
00	10	0	0	0	1	00	01	1	0
01	10	0	0	0	1	00	01	1	0
10	10	0	0	0	1	00	01	1	0
11	10	0	0	0	1	00	01	1	0

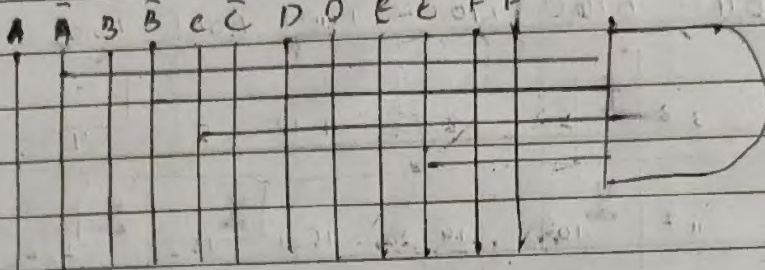
$(0, 2, 8, 10, 16, 18, 24, 26, 32, 34, 40, 42, 48, 50, 56, 58) = \bar{D} \cdot \bar{F}$
 $(12, 13, 8, 19) = \bar{A} \bar{B} C \bar{E}$
 $(35, 39, 47, 43) = A \bar{B} E F$
 $(29, 31, 61, 63) = B C D F$
 $(9, 25) = \bar{A} C D \bar{E}$

$$Y_2 = \bar{D} \cdot \bar{E} + \bar{A} \bar{B} C \bar{E} + \bar{A} C \bar{D} \bar{E} + B C D E + A B \bar{E} \bar{F}$$

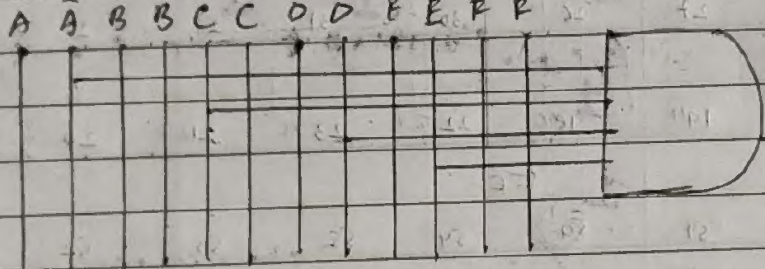
A \bar{A} B \bar{B} C \bar{C} D \bar{D} E \bar{E} F \bar{F}



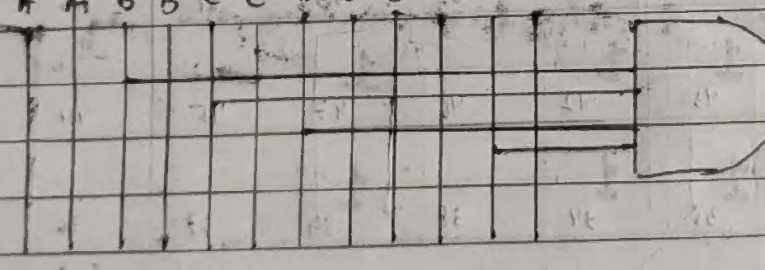
A \bar{A} B \bar{B} C \bar{C} D \bar{D} E \bar{E} F \bar{F}



A \bar{A} B \bar{B} C \bar{C} D \bar{D} E \bar{E} F \bar{F}



A \bar{A} B \bar{B} C \bar{C} D \bar{D} E \bar{E} F \bar{F}



A \bar{A} B \bar{B} C \bar{C} D \bar{D} E \bar{E} F \bar{F}

